The Actuarial Profession
making financial sense of the future

Pension Conference 2010
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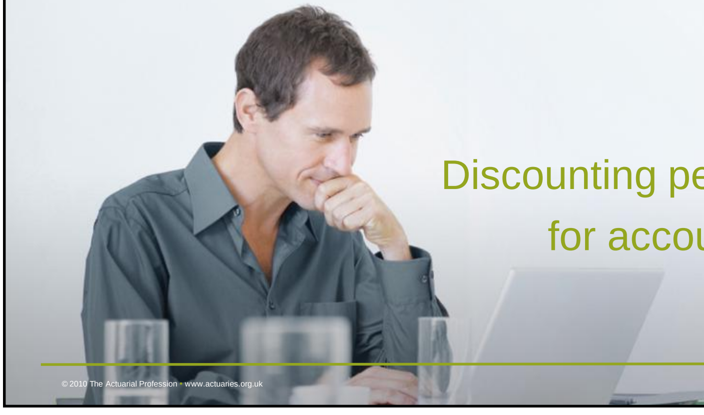

Discounting pension cashflows for accounting valuations

Overview

- Some fundamental (pension) accounting questions
- Some themes from IASB discussions to date
- Comparisons with insurance accounting
- Thoughts on different measurement approaches
- The Profession's discount rate research project
- Should different discount rates be used for different purposes?

Ultimate cost of any pension plan

Benefits Paid from the Plan

Plus

Administrative Expenses, Taxes & Levies

Less

Investment Gains (Net of Losses)

Conceptual framework

- The objective and purpose of accounts
  - financial reporting should provide information that is useful in making business and resource allocation decisions
  - information must be timely and complete for it to be relevant and reliable
- Disclosures convey additional information on quality of decisions and risk considerations

Some fundamental (pension) accounting questions

- Are IAS19 figures decision useful?
  - Useful to whom and for what purpose?
    - To provide best possible quantification or to facilitate comparison?
    - Show economic or legal obligation? Is it decision useful if the IAS19 figures result in higher liabilities than an entity's obligations under local law?
    - Should we show the entity's cashflow to the plan, or the plan's cashflow to the beneficiaries?
  - How do pension figures compare with other company obligations recorded in the accounts? Are all obligations measured consistently?
  - Which risks to quantify, which to disclose, and which neither?
  - What do accounts they tell us about risk?
- Technical approach?
  - Project cashflows against what measurement objective?
    - What does 'settlement' mean?
  - Build risk into cashflows and then apply a nil risk discount rate?
    - Should a "neutral" discount rate be used?
    - Should a liquidity premium be taken into account?
    - Should credit risk be taken into account?
    - Should non-performance risk be taken into account?
- Are the projected cashflows more decision useful than NPV figures?
  - 90% (?) of the volatility in pension values comes from volatility in discount rates not the cashflows?

IASB's fundamental review of IAS19

- In April 2009, Sir David Tweedie asked the IAA to assist the IASB in setting discount rates used in the measurement of defined benefit obligations
  - Views on the current objective of a high quality corporate bond?
  - Would a fair value objective provide more relevant information? What discount rates would this point to?
  - What other objectives could be used?
  - How much guidance should the IASB provide on implementing the proposed objectives for the discount rate?
- This would inform the IASB's fundamental review of IAS19 planned for earliest mid 2011
  - Definition of a liability
  - Measurement
  - Consolidation

Some themes from IASB discussions to date

- Not possible, or misleading to users of accounts, to measure all risks?
  - Obligations and risks can be measured, disclosed, both or neither
  - Do cashflows provide more decision useful information than measurements
- What measurement objective to they wish to apply?
  - Fulfillment/settlement/exit price etc
- Which obligations do the IASB want to measure / disclose?
  - ABO or PBO
  - Should contractual, constructive & discretionary benefits be separately disclosed?
    - [Obligations brought forward from use of uniform accrual]
- Are constructive benefits really constructive?
  - Non performance risk
- Comparison of pension accounting with that for other corporate obligations

Accounting treatment of different corporate obligations

	Mark to market	Impact recorded in P&L	Allowance for credit risk	Sensitivity to interest rate changes
Current IAS 19	Yes (with option to amortise)	An option (which few adopt)	Yes – independent of entity risk	Yes, if material
ASB proposal	Yes	Yes	No – risk free	Yes – even if not material
Debt issued by entity	No (disclosure only)	No	Yes – as at issue	No (because impact is nil if not marked to market)
Lease arrangements (asset and lease payments)	No (not all on balance sheet; amortised cost even if on)	No	Yes – implicitly – as at issue	No (because impact is nil if not marked to market)
Bank fixed rate loans/deposits	No	No	Yes – implicitly (interest rate reflects risk)	No (because impact is nil if not marked to market)
Framework	No preference for one measurement model over others	No stated preference for P&L vs SoRIE	Not addressed	Not addressed
Conceptual framework (draft)	Not addressed yet	Not addressed yet	Not addressed yet	Not addressed yet

Why?

- A function of history
- Pension is in respect of a service rather than a fee
- Pension cashflows are uncertain

IAA work programme

- The IAA pensions committee and the IASB meet twice a year
- IAA has started work on
  - Similarities and differences between insurance and pensions
  - Should actuaries promote focused cashflow related information?
  - Implications of different approaches to measurement
    - Economic
    - Solvency
    - Legal / delivery vehicle specific
    - Enterprise risk management
- A UK Pensions PEC working party has been established to focus on UK aspects of these and other questions also
  - Volunteers always welcome

Some similarities and differences between insurance and pensions

- Non-participating insurance is contract driven : *security* is an external feature factored into the price of the product
- Historically, pensions were a best endeavour by the employer dependent on affordability. With changing (UK) legislation, *security* of past service benefits has become a harder feature of (UK) pensions. Employers are managing the "cost" of pension in various ways.

  There remains a social policy element to pensions
- Participating insurance : Policyholders have paid a 'bonus loading' and are entitled to certain expectations (subject to investment performance/affordability)
  - cf deferred pay concept
  - cf contractual/constructive/discretionary benefits
- Insurance accounting follows insurance regulation
  - It is primarily focused on explicit solvency capital requirements
  - pensions include non-cash capital (covenant, disclosures)

Should accounting recognise the different context between pensions and insurance?

Should accounting of pensions be more aligned with accounting of with-profits business?

Should accounting reflect different management of 'own' credit risk?

Insurance accounting: Current

Accounting requirements same as FSA statutory reporting requirements

- Technical provisions
  - Gross redemption yields on assets
    - eliminating credit risk but not any premium arising from lack of marketability
    - 97½% of adjusted yields
  - Running yield on equities and property
    - Average of current dividend and earnings yield, but no allowance for future growth
  - No liability for future awards of bonus

In addition, for larger with profits funds,

- Enhanced Capital Requirement to demonstrate ability to treat customers fairly
  - Market-consistent valuation of options and guarantees
  - Market consistent allowance for future returns on investment
    - Running yield, no allowance for capital growth
  - Stochastic approaches preferred

Insurance regulation - where we might be going

Solvency II

- Technical provisions to be best estimate plus a risk margin
  - Can be interpreted as the amount another undertaking would require to take over the obligations
- Risk-free term structure of interest rates to be used
  - In general no regard to assets actually held
- Discussion over how risk-free rates should be determined
  - Reference rates
  - Term structure / re-investment risk
  - Default/downgrade risks
  - Strong argument from industry for an Illiquidity premium

Will measurement of insurance contracts follow SII?

Revision of IFRS 4

- Long and twisting road to a standard for insurance contracts (still changing)
- Latest draft of IFRS (revised) proposes *fulfilment value*
  - Amount it would rationally pay at end of reporting period to be relieved of the present obligation
  - TPs include a risk margin
    - Risk margin = amount an insurer requires for bearing the uncertainty from having to fulfil the obligation
- Measurement (tentative)
  - Allow for probability weighted cash flows, and time value of money
  - Discount rate to capture characteristics of liability (not expected return on assets)
- Seems aligned with SII technical provisions (assuming fulfilment value embraces an illiquidity premium).

IAA work programme
Economic approach?

- Analyse cashflows according to those that are

	Collateralised / priority creditor status	Non-collateralised / low priority
Vested		
Unvested		

- Apply different discount rates reflecting nature of cashflows
  - Vested/collateralised : use “nil risk” rate?
  - Other : Higher rate allowing for non-performance or credit risk ?
- Accounting liability cannot be less than local funding law liability?

IAA work programme
Solvency approach?

- Start with insurance pricing ('buy-out')
- Strip out factors not consistent with the nature of pension cashflows
  - Profit
  - solvency margins
  - other margins/re-spread front end loadings for commercial risks
  - (stronger credit of insurer?)
  - etc
- Add in any solvency/funding margins from local pensions law

- *Alternatively*
  - *Start with insurance reserve before adding solvency, expense etc margins*
  - *Adjust for any solvency/funding margins from local pensions law*

IAA work programme
Legal & Enterprise Risk Management approaches?

- Legal
  - Accounting measurement looks through the vehicle used to deliver the benefits as if there is a direct obligation from the employer
    - *NB consolidation rules may look at the vehicle*
  - But the vehicle used can change the nature of the obligation and hence the cashflows the employer is obligated to provide in law
    - Credit & non-performance risks are key considerations
  - Should the accounting reflect the economic or the legal obligation?

- ERM
  - Look at the pension scheme as part of the employer
  - Should accounting factor in cashflows that assume a greater obligation by the company than that required under local law and funding rules etc

Research project on discount rates

- Why commissioned?
  - Discount rates are the heart of many models and therefore of significant public interest
  - Ensure a clear and common understanding of the issues surrounding different rates used today
  - Support the development of future framework for discount rates
- Phase 1
  - Packet 1: Survey of current practices
  - Packet 2: Survey of existing research and debate
  - Packet 3: Develop a common language for communicating current practice on discount rates and risk
- Phase 2
  - Packet 4: developing a common framework
  - Packet 5 : the impact of change

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Packet 1: Current Practice

Survey of different discount rates currently used for different purposes in each practice area in the UK

To include

- Historical perspective
- Legislative framework
- Nature of promise
- Impact of government actions on nature of promise

To understand who liabilities are in respect of

- Shareholders
- Policyholders
- Management
- Regulators
- Trustees
- Pension scheme members

Covering following areas of actuarial work:

- Life assurance
- General insurance
- Pensions
- Finance & Investment
- Enterprise Risk Management

UK focus with only a passing reference to international developments where they have a particular bearing on UK practice

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Initial findings: Discount Rate project

- Number of different methodologies for setting discount rates
- Principle Drivers
  - Purpose of the calculation and the context (practice area)
- Calculations fall into two broad categories:

Matching calculations

- What are the characteristics of the liability cash flow?
- Are there any traded instruments which *match liability cash flows*?
- Is the market deep, liquid and transparent?

Budgeting calculations

- How is the liability being financed?
- What is the current yield on the investments?
- Is the current yield the same as the total overall return?

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Initial findings: Discount Rate project

Matching

- Accounting
  - Current IAS19 (pen)
  - Future IFRS4 (ins)
- Statutory reserves
  - Future (SII)
- Capital requirements (ins)
  - Current ICA
  - Future (SII)
- Shareholder (ins)
  - MCEV
- Risk transfer
  - Section75 (Pen)
  - Hedging (banks, ins)

Budgeting

- Accounting
  - Current (ins)
  - Director's pensions
- Statutory reserves
  - Current (ins)
- Funding (pens)
  - Technical provisions
  - Recovery plans
- Shareholder (ins)
  - **Traditional EV**
- Risk transfer
  - Transfer values (pen)
- Govt STPR
- Fundamental value

Calculations differ in the nature and degree of risk embedded in the discount rate

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Initial findings: common language

- Improved language
  - Glossary of terms?
- Disclosure of risk
  - How risk is accommodated in calculations
  - How communicated
  - Are consequences understood?
- Education
  - Long term financing and regular measurement
  - Behavioural consequences
- Should discount rates state a specific purpose?

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Should discount rates differ?

- Funding (budgeting exercise)
  - Enable different views on future uncertain events
  - New benefits vs deficit correction
- Valuation /Assessing capital (matching)
  - Is this a least risk assessment?
  - Should it take account of specific circumstances
    - own credit risk or a fulfilment approach
- Do different purposes justify different approaches
  - Market consistent (portfolio replication) or expected return (projected budgeting)?
- Accounting:
    - Is the purpose to provide best possible quantification or to facilitate comparison?
- Who are the end users and what are their purposes?

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Differing discount rates: security

- **Does security justify different discount rates**
  - Guaranteed versus discretionary benefits
  - Should the risk of **guarantor** default be considered? If so how measured?
  - Security depends on collateral, amount and quality; should identical pension funds with same funding level but different assets (including contingent assets) have different discount rates?
  - External protection, PPF, FSCS, other?
  - Should future actions be considered, investment policy, or regulatory, for example removal of Tax advantages on commutation?
  - Does the legal vehicle for delivering the benefits matter? Should insured benefits be discounted differently?
- **Should this be recast as a discussion on capital?**
  - Extra risk = lower security; an expression of capital

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Discount Rates: the actuarial profession

- Should the profession address the diversity of approaches to discount rates?
- Should the IAA be leading the work for the IASB, what role should the UK profession play?
- What are the risks to the profession if it:
  i) does not provide direction on discount rates
  ii) advocates a change in approach?
- Can this debate and work be structured to enhance the standing of the profession?

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